

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 – 28. (Cancelled)

29. (Currently Amended) ~~The method of claim 18~~ A method for compensating for polarization mode dispersion (PMD), comprising:

rotating the polarization states of one or more optical signals based on an error condition of at least one of the optical signals at an optical compensator; and
dispersing the rotated optical signals using a first birefringent optical conduit to compensate for PMD;

receiving the dispersed optical signals at an optical receiver;
measuring the error condition at the optical receiver; and
changing the polarization state of rotation at the optical compensator based on the error condition to compensate for PMD,

wherein the step of rotating occurs at a location between the optical source and the optical receiver and defined by a ratio $L1 / L2$,

wherein $L1 / L2$ is less than approximately 1.5, and wherein $L1$ is the length of a first optical conduit between the optical compensator and optical source, and $L2$ is the length of the second optical conduit between the optical compensator and optical receiver,

wherein the step of rotating occurs at a location between the optical source and the optical receiver and defined by a ratio $\overline{\Psi} 1 / \overline{\Psi} 2$ [[;]],

wherein $\overline{\Psi} 1 / \overline{\Psi} 2$ is less than approximately 1.2, and wherein $\overline{\Psi} 1$ is the average PMD of a first optical conduit between the optical compensator and optical source, and $\overline{\Psi} 2$ is the average PMD of the second optical conduit between the optical compensator and optical receiver.

30. (Previously Presented) The method of claim 29, wherein approximately $1.2 \geq (\overline{\Psi} 1 / \overline{\Psi} 2) \geq 0.5$.

31. (Original) The method of claim 30, wherein the ratio $\overline{\Psi} 1 / \overline{\Psi} 2$ is approximately 0.8.

32. (Cancelled)